

February 19, 2003

Re: Purina Mills, LLC 085-16074-00021

TO: Interested Parties / Applicant

FROM: Paul Dubenetzky
Chief, Permits Branch
Office of Air Quality

Notice of Decision: Approval - Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-17-3-4 and 326 IAC 2, this approval is effective immediately, unless a petition for stay of effectiveness is filed and granted, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3-7 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, ISTA Building, 150 W. Market Street, Suite 618, Indianapolis, IN 46204, **within (18) eighteen days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

- (1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
- (2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
- (3) the date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

- (1) the name and address of the person making the request;
- (2) the interest of the person making the request;
- (3) identification of any persons represented by the person making the request;
- (4) the reasons, with particularity, for the request;
- (5) the issues, with particularity, proposed for consideration at any hearing; and
- (6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosure

February 19, 2003

Mr. Paul Luther
Purina Mills, LLC.
P. O. Box 66812
St. Louis, MO 63166

Re: **085-16074-00021**
First Minor Permit Revision to
MSOP 085-14327-00021

Dear Mr. Luther:

Purina Mills, LLC. was issued a minor source operating permit on September 14, 2001 for a stationary animal feed manufacturing operation. A letter requesting a revision to this permit was received on September 9, 2002. Pursuant to the provisions of 326 IAC 2-6.1-6 a minor permit revision to this permit is hereby approved as described in the attached Technical Support Document.

The modification consists of replacing an existing pellet mill (a maximum throughput of 25 tons/hr) with a new pellet mill (a maximum throughput of 30 tons/hr).

The following construction conditions are applicable to the proposed project:

1. The data and information supplied with the application shall be considered part of this permit revision approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).
2. This approval to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.
3. Pursuant to IC 13-15-5-3, this approval to construct becomes effective upon its issuance.
4. Pursuant to 326 IAC 2-1.1-9 (Revocation), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.
5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.

Pursuant to 326 IAC 2-6.1-6, the minor source operating permit shall be revised by incorporating the minor permit revision into the permit. All other conditions of the permit shall remain unchanged and in effect. Please attach a copy of this permit revision which includes this letter, the attached operating conditions applicable to these emission units, and revised permit pages to the front of the original permit.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Scott Fulton, at OAQ, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, or call (800) 451-6027, press 0 and ask for Scott Fulton or extension (3-5691), or dial (317) 233-5691.

Sincerely,

Original Signed by Paul Dubenetzky
Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

Attachments

SDF

cc: File - Kosciusko County
U.S. EPA, Region V
Kosciusko County Health Department
Northern Regional Office
Air Compliance Section Inspector - Doyle Houser
Compliance Data Section - Karen Nowak
Administrative and Development
Technical Support and Modeling - Michele Boner

CONSTRUCTION AND MINOR SOURCE OPERATING PERMIT OFFICE OF AIR QUALITY

**Purina Mills, Inc.
346 West 1350 N, Milford, IN 46542**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the emission units described in Section A (Source Summary) of this permit.

This permit is issued to the above mentioned company under the provisions of 326 IAC 2-1.1, 326 IAC 2-6.1 and 40 CFR 52.780, with conditions listed on the attached pages.

Operation Permit No.: MSOP 085-14327-00021	Date Issued: September 14, 2001
First Minor Permit Revision: 085-15278-00021	Date Issued: March 5, 2002
Second Minor Permit Revision: 085-16074-00021	Pages Modified: 4, 15, 16, 17, 18, and 19
Issued by: Original Signed by Paul Dubenetzky Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: February 19, 2003

SECTION A

SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-5.1-3(c)] [326 IAC 2-6.1-4(a)]

The Permittee owns and operates a stationary animal feed manufacturing operation.

Authorized Individual: Paul Luther
Source Address: 346 West 1350 N, Milford, IN 46542
Mailing Address: P.O. Box 66812, St. Louis, MO 63166-6812
Phone Number: 314-768-4630
SIC Code: 2048
County Location: Kosciusko
County Status: Attainment for all criteria pollutants
Source Status: Minor Source Operating Permit;
Minor Source, under PSD Rules;
Minor Source, Section 112 of the Clean Air Act

A.2 Emissions units and Pollution Control Equipment Summary

This stationary source is approved to operate the following emissions units and pollution control devices:

- (a) Receiving and Bin Loading Operation, identified as ID1 and ID2, with a maximum capacity of 50 tons per hour of feed ingredients per hour, and exhausting fugitively to the atmosphere.
- (b) Hammermill Operation, identified as ID3, with a maximum capacity of 35 tons per hour of grain per hour, using a cyclone as control, and exhausting to stack 3.
- (c) One (1) micro room, identified as ID3, with a maximum capacity of 0.5 tons per hour of micro ingredients, using a cyclone and baghouse as control, and exhausting to stack 3.
- (d) Grain Cleaning operation, identified as ID5, with a maximum capacity of 30 tons per hour of grain, using a filter as particulate control, and exhausting to stack 5.
- (e) Pellet Cooler Operation, identified as ID6, with a maximum capacity of 30 tons per hour of pelleted feed per hour, using a cyclone as control, and exhausting to stack 6.
- (f) Bulk Loadout Operation, identified as ID7, with a maximum capacity of 60 tons per hour of finished feed per hour, and exhausting fugitively to the atmosphere.
- (g) Two (2) feed packers, with a total maximum capacity of 30 tons per hour of finished feed per hour, using a baghouse as control, which discharges internally.
- (h) One (1) natural gas fired boiler, with a maximum rated heat input of 6.3 million British thermal units per hour (MMBtu/hr), identified as B1, and exhausting to stack B1.

SECTION D.1

EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

- (a) Receiving and Bin Loading Operation, identified as ID1 and ID2, with a maximum capacity of 50 tons per hour of feed ingredients per hour, and exhausting fugitively to the atmosphere.
- (b) Hammermill Operation, identified as ID3, with a maximum capacity of 35 tons per hour of grain per hour, using a cyclone as control, and exhausting to stack 3.
- (c) One (1) micro room, identified as ID3, with a maximum capacity of 0.5 tons per hour of micro ingredients, using a cyclone and baghouse as control, and exhausting to stack 3.
- (d) Grain Cleaning operation, identified as ID5, with a maximum capacity of 30 tons per hour of grain, using a filter as particulate control, and exhausting to stack 5.
- (e) Pellet Cooler Operation, identified as ID6, with a maximum capacity of 30 tons per hour of pelleted feed per hour, using a cyclone as control, and exhausting to stack 6.
- (f) Bulk Loadout Operation, identified as ID7, with a maximum capacity of 60 tons per hour of finished feed per hour, and exhausting fugitively to the atmosphere.
- (g) Two (2) feed packers, with a total maximum capacity of 30 tons per hour of finished feed per hour, using a baghouse as control, which discharges internally.
- (h) One (1) natural gas fired boiler, with a maximum rated heat input of 6.3 million British thermal units per hour (MMBtu/hr), identified as B1, and exhausting to stack B1.

D.1.1 Particulate Matter (PM) [326 IAC 6-3] 326 IAC 6-3-2 (Process Operations)

- (a) The particulate matter (PM) from the Receiving and Bin Loading Operation, Bulk Loadout Operation, and the Hammermill Operation shall be limited by the following:

Interpolation and extrapolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 55.0 P^{0.11} - 40$$

where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

The allowable emissions for each facility are as follows:

Emission Unit	Process Weight Rate (tons/hr)	PM Emissions (lb/hr)	Allowable PM Emissions (326 IAC 6-3-2) (lb/hr)
Receiving and Bin Loading Operation	50.00	13.36	44.58
Bulk Loadout Operation	60.00	0.87	46.29
Hammermill Operation	35.00	10.27	41.32

The cyclone shall be in operation at all times the hammermill is in operation, in order to comply with this limit.

- (b) The particulate matter (PM) emissions from the Pellet Cooler Operation, for a maximum process weight rate of 30 tons per hour, shall be limited to 40.04 lb/hr.
- (c) The particulate matter (PM) emissions from the Micro Room, Grain Cleaning operation and the Packing Operation, for respective maximum process weight rates of 0.5, 30, and 12 tons per hour, shall be limited to 2.58, 40.04, and 21.67 lb/hr, respectively.
- (d) Pursuant to 326 IAC 2-2, the particulate matter emissions shall be limited as follows:

Process	Pounds Per Ton
Receiving and Bin Loading	0.210
Bulk Loadout	0.180
Hammermill	0.270
Pellet Cooler	0.330
Micro Room	1.200
Grain Cleaning	0.330
Packing	0.310

This will limit the PM emissions to less than 249.8 tons per year. Therefore, 326 IAC 2-2 will not apply.

- (e) Pursuant to 326 IAC 2-1.1-5(a), the particulate matter less than 10 microns (PM-10) shall be limited as follows:

Process	Pounds Per Ton
Receiving and Bin Loading	0.030
Bulk Loadout	0.030
Hammermill	0.150
Pellet Cooler	0.175
Micro Room	0.300
Grain Cleaning	0.090
Packing	0.300

This will limit the PM10 emissions to less than 100 tons per year.

D.1.2 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan, in accordance with Section C - Preventive Maintenance Plan, of this permit, is required for this emissions unit and its control device.

Compliance Determination Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.1.3 Particulate Matter (PM)

The cyclone for PM control shall be in operation at all times when the Hammermill Operation, identified as ID3, and the Pellet Cooler Operation are in operation.

Compliance Monitoring Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.1.4 Visible Emissions Notations

- (a) Daily visible emission notations of the Hammermill Operation, identified as ID3, and the Pellet Cooler Operation stack exhaust shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

D.1.5 Parametric Monitoring

The Permittee shall record the total static pressure drop across the cyclones used in conjunction with the Hammermill Operation, identified as ID3, and the Pellet Cooler Operation, identified as ID6, at least once daily when the Hammermill Operation, identified as ID3, and the Pellet Cooler Operation is in operation when venting to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the air flow rate in the cyclones shall be maintained at a minimum of 3,800 and 24,000 actual cubic feet per minute, respectively, or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge Specifications, of this permit, shall be subject to approval by IDEM, OAM, and shall be calibrated at least once every six (6) months.

Record Keeping and Reporting Requirement [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.1.6 Record Keeping Requirements

- (a) To document compliance with Condition D.1.4, the Permittee shall maintain records of daily visible emission notations of the Hammermill Operation, identified as ID3, and the Pellet Cooler Operation, identified as ID6 stack exhaust.
- (b) To document compliance with Condition D.1.5, the Permittee shall maintain the following:
 - (1) Daily records of the following operational parameters during normal operation when venting to the atmosphere:
 - (A) Air flow rate in the cyclones
 - (2) Documentation of all response steps implemented, per event.
 - (3) Operation and preventive maintenance logs, including work purchases orders, shall be maintained.
 - (4) Quality Assurance/Quality Control (QA/QC) procedures.
 - (5) Operator standard operating procedures (SOP).
 - (6) Manufacturer's specifications or its equivalent.
 - (7) Equipment "troubleshooting" contingency plan.
 - (8) Documentation of the dates vents are redirected.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

Purina Mills, LLC.
Milford, Indiana
Permit Reviewer: PR/EVP

2nd Minor Permit Revision No. 085-16074-00021
Modified By: SDF

Page 19 of 22
MSOP No. 085-14327-00021

This page is no longer necessary due to the changes made under 2nd Minor Permit Revisions 085-16074-00021.

Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for a

Minor Permit Revision to a Minor Source Operating Permit (MSOP)

Source Background and Description

Source Name: Purina Mills, LLC.
 Source Location: 346 West 1350 N, Milford, Indiana 46542
 County: Kosciusko
 SIC Code: 2048
 Operation Permit No.: 085-14327-00021
 Date Issued: September 14, 2001
 Second Minor Permit Revision No.: 085-16074-00021
 Permit Reviewer: SDF

The Office of Air Quality (OAQ) has reviewed an application from Purina Mills, LLC. relating to a modification to their existing stationary animal feed manufacturing operation.

Request

On September 9, 2002, Purina Mills, LLC. submitted an application to construct and operate one (1) 200 horsepower pellet mill, processing animal feed at a maximum rate of 30 tons per hour, with particulate emissions controlled by a cyclone, and with emissions exhausted through Stack 6. The pellet mill will be replacing an existing 25 tons per hour pellet mill.

The proposed pellet mill will be part of a process that consists of a receiving area, a transfer and storage area, grain cleaning, grinding, mixing and batching, pelleting, a bulk load out area, and a packaging area. The respective capacities are listed below.

Process	Capacity (tons/hr)
Receiving	50
Transfer and Storage	50
Grain Cleaning	25
Grinding	35
Mixing and Batching	35
Pelleting	30
Bulk Loadout	60
Packaging	30

During the original MSOP review, the UPTE of each emission point was determined based on the respective maximum capacities.

Since the proposed pelleting maximum capacity is less than or equal to the respective capacities of the receiving, transfer and storage, grinding, mixing and batching, bulk load out, and packaging areas, and the UPTE from these emission points was determined based on each point's maximum throughput, it is determined that the increased pelleting process capacity will not allow an increase in UPTE from any of these existing emission points.

The grain cleaner maximum throughput (25 tons/hr) is, however, less than the proposed pellet mill throughput (30 tons/hr). Therefore, theoretically, the proposed modification can cause a 5 tons/hr increase in production at the grain cleaner.

Thus, the emissions due to the modification are the PM and PM10 emissions generated by the proposed pellet mill based on a maximum throughput of 30 tons/hr and the potential increase in PM and PM10 emissions from the grain cleaner based on a 5 ton/hr increase in capacity.

The PM and PM10 unrestricted potential to emit (UPTE) are estimated to be 21.35 and 10.27 tons per year, respectively.

Since the PM and PM10 emissions are greater than the lower end applicable level of 5 tons/yr, but less than the upper end level of 25 tons/yr, the proposed modification shall be incorporated into the permit via a Minor Permit Revision pursuant to 326 IAC 2-6.1-6(g)(4)(A) which states modifications that would have a PM and/or PM10 potential to emit less than 25 tons per year, but greater than 5 tons per year, shall be incorporated into the Minor Source Operating Permit (MSOP) via a minor permit revision.

Existing Approvals

The source has been operating under MSOP 085-14328-00021, issued on September 14, 2001, and 1st Minor Permit Revision 085-15278-00021, issued on March 5, 2002.

Recommendation

The staff recommends to the Commissioner that the Minor Permit Revision be approved. This recommendation is based on the following facts and conditions.

Unless otherwise stated, information used in this review was derived from the application.

Emission Calculations

The emissions due to the modification are the PM and PM10 emissions generated by the proposed pellet mill based on a maximum throughput of 30 tons/hr and the potential increase in PM and PM10 emissions from the grain cleaning area based on a 5 ton/hr increase in capacity.

Unrestricted Potential to Emit (UPTE):

The following calculations determine the UPTE due to the modification.

(a) Pellet Mill:

The following calculations determine the Pellet Mill UPTE based on the worst case throughput, AP-42 emission factors, 8760 hours of operation, and emissions before controls.

(1) PM:

$$30 \text{ tons/hr} * 1.5 \text{ E-1 lb/ton} * 8760 \text{ hr/yr} * 1/2000 \text{ tons/lb} = 19.71 \text{ tons/yr}$$

(2) PM10:

$$30 \text{ tons/hr} * 7.5\text{E-2 lb/ton} * 8760 \text{ hr/yr} * 1/2000 \text{ tons/lb} = 9.86 \text{ tons/yr}$$

(b) Grain Cleaning:

The following calculations determine the grain cleaning UPTE based on the worst case throughput, AP-42 emission factors, 8760 hours of operation, and emissions before controls.

(1) PM:

$$5 \text{ tons/hr} * 7.5 \text{ E-2 lb/ton} * 8760 \text{ hr/yr} * 1/2000 \text{ tons/lb} = 1.64 \text{ tons/yr}$$

(2) PM10:

$$5 \text{ tons/hr} * 1.88 \text{ E-2 lb/ton} * 8760 \text{ hr/yr} * 1/2000 \text{ tons/lb} = 0.41 \text{ tons/yr}$$

Emissions After Controls:

(a) Pellet Mill:

The Pellet Mill PM and PM10 emissions are controlled by a cyclone with an overall design control efficiency of 99% for PM and 95% for PM10. The following calculations determine the PM/PM10 emissions after controls.

(1) PM:	$19.71 \text{ tons PM/yr} * (1 - 0.99)$	=	0.20 tons PM/yr
(2) PM10:	$16.87 \text{ tons PM10/yr} * (1 - 0.95)$	=	0.84 tons PM10/yr

(c) Grain Cleaning:

The grain cleaning PM and PM10 emissions are controlled by a filter system with an overall design control efficiency of 99%. The following calculations determine the PM/PM10 emissions after controls.

(1) PM:	$1.64 \text{ tons PM/yr} * (1 - 0.99)$	=	0.02 tons PM/yr
(2) PM10:	$0.41 \text{ tons PM10/yr} * (1 - 0.99)$	=	0.004 tons PM10/yr

Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U.S. EPA.”

This table reflects the PTE before controls from the modification based on the above estimated emissions calculations. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	21.35
PM10	10.27
SO2	-
VOC	-
CO	-
NO _x	-

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

The proposed modification shall be incorporated into the permit via a Minor Permit Revision pursuant to 326 IAC 2-6.1-6(g)(4)(A) which states modifications that would have a PM and/or PM10 potential to emit less than 25 tons per year, but greater than 5 tons per year, shall be incorporated into the Minor Source Operating Permit (MSOP) via a minor permit revision.

County Attainment Status

The source is located in Kosciusko County.

Pollutant	Status
PM ₁₀	attainment or unclassifiable
SO ₂	attainment or unclassifiable
NO ₂	attainment or unclassifiable
Ozone	attainment or unclassifiable
CO	attainment or unclassifiable
Lead	attainment or unclassifiable

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Kosciusko County has been designated as attainment or unclassifiable for ozone. Therefore, the VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration, 326 IAC 2-2 and 40 CFR 52.21.
- (b) Kosciusko County has been classified as attainment or unclassifiable for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Source Status

Existing Source PSD Definition (emissions after controls, based upon 8760 hours of operation per year at rated capacity and/or as otherwise limited), determined by summing the existing source emissions obtained from MSOP 14327 and the emissions from First Minor Permit Revision 15278:

	PM (tons/yr)	PM10 (tons/yr)	SO2 (tons/yr)	NOx (tons/yr)	VOC (tons/yr)	CO (tons/yr)	Single HAP (tons/yr)	Comb. HAPs (tons/yr)
Source	43.88	17.07	0.02	2.76	0.15	2.32	neg.	neg.

PSD Major Levels	250	250	250	250	250	250	-	-
Part 70 Major Levels	-	100	100	100	100	100	10	25

- (a) This existing source is not a major PSD stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more and it is not one of the 28 listed source categories.
- (b) This existing source is not a Title V major stationary source because no criteria pollutant emissions exceed the applicable level of 100 tons/yr and the single and combined HAP emissions are less than the respective levels of 10 and 25 tons per year.

Modification Emissions

Modification PSD Definition (emissions after controls, based upon 8760 hours of operation per year at rated capacity and/or as otherwise limited):

	PM (tons/yr)	PM10 (tons/yr)	SO2 (tons/yr)	NOx (tons/yr)	VOC (tons/yr)	CO (tons/yr)	Single HAP (tons/yr)	Comb. HAPs (tons/yr)
Source	0.22	0.84	-	-	-	-	-	-

PSD Major Levels	250	250	250	250	250	250	-	-
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- (a) The PM and PM10 emissions from the pellet mill are controlled by a cyclone with a PM overall control efficiency of 99% and a PM10 overall control efficiency of 95%.
- (b) The PM and PM10 emissions from the grain cleaner are controlled by a filter with an overall control efficiency of 99%.
- (c) The modification is not a major modification because the PM and PM10 emissions are less than their respective major source levels.

Source Emissions After the Proposed Modification:

	PM (tons/yr)	PM10 (tons/yr)	SO2 (tons/yr)	NOx (tons/yr)	VOC (tons/yr)	CO (tons/yr)	Single HAP (tons/yr)	Comb. HAPs (tons/yr)
Source	44.10	17.91	0.02	2.76	0.15	2.32	neg.	neg.

PSD Major Levels	250	250	250	250	250	250	-	-
Part 70 Major Levels	-	100	100	100	100	100	10	25

- (a) The source after the proposed modification is still not a major PSD stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more and it is not one of the 28 listed source categories.
- (b) This source after the proposed modification is still not a Title V major stationary source because no criteria pollutant emissions exceed the applicable level of 100 tons/yr and the single and combined HAP emissions are less than the respective levels of 10 and 25 tons per year.

Federal Rule Applicability

(a) New Source Performance Standards (NSPS):

- (1) The source, including the proposed pellet mill, is not subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60.300, Subpart DD, Standards of Performance for Grain Elevators), as the subpart specifically exempts animal food manufacturing operations.
- (2) There are no other New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.

(b) National Emission Standards for Hazardous Air Pollutants (NESHAPs):

There are no National Emission Standards for Hazardous Air Pollutants (326 IAC 14 and 20 and 40 CFR Parts 61 and 63) that apply to this proposed source.

State Rule Applicability

(a) Entire Source Rules:

- (1) 326 IAC 1-6-3 (Preventive Maintenance Plan):

The proposed source is still required to have a preventive maintenance plan for the emission units and control devices of the source.

- (2) 326 IAC 2-2 (Prevention of Significant Deterioration)

The proposed modification is not a major modification because there are no pollutants that exceed the applicable level of 250 tons per year.

- (3) 326 IAC 2-6 (Emission Reporting)

326 IAC 2-6 still does not apply because each applicable pollutant's PTE, after the modification, is still less than one hundred (100) tons per year.

- (4) 326 IAC 5-1 (Visible Emissions Limitations)

The addition of the proposed replacement pellet mill does not change the status of 326 IAC 5-1-2 applicability. 326 IAC 5-1 still applies.

(5) 326 IAC 6-4 (Fugitive Particulate Emission Limitations)

The addition of the proposed replacement pellet mill does not change the status of 326 IAC 6-4 applicability. 326 IAC 6-4 still applies.

(b) Individual Unit Rules:

(1) 326 IAC 6-3, Pellet Mill:

The proposed pellet mill is subject to the requirements of 326 IAC 6-3.

Pursuant to 326 IAC 6-3, the particulate matter (PM) from the Pellet Cooler Operation for a process weight rate of 30 tons per hour, shall be limited to 40.04 lb/hr:

$$E = 4.10 P^{0.67} = 4.10 (30)^{0.67} = 40.04 \text{ lb/hr}$$

where E = rate of emission in pounds per hour

P = process weight rate (30 tons per hour)

The cyclone shall be in operation at all times the Pellet Cooler Operation is in operation, in order to comply with this limit.

(2) 326 IAC 6-3, Grain Cleaner:

The proposed grain cleaner is subject to the requirements of 326 IAC 6-3.

Pursuant to 326 IAC 6-3, the particulate matter (PM) from the grain cleaner for a process weight rate of 30 tons per hour, shall be limited to 40.04 lb/hr:

$$E = 4.10 P^{0.67} = 4.10 (30)^{0.67} = 40.04 \text{ lb/hr}$$

where E = rate of emission in pounds per hour

P = process weight rate (30 tons per hour)

Changes to the Existing Part 70 Permit

To incorporate the proposed modification into the existing Part 70 permit, the following changes shall be made. All additional language appears as bold type. All deleted language is struck out.

1. Condition A2:

The source description of Condition A.2 shall be amended as follows to include the new replacement pellet mill and grain cleaner capacities.

A.2 Emissions units and Pollution Control Equipment Summary

This stationary source is approved to operate the following emissions units and pollution control devices:

(a)

(d) Grain Cleaning operation, identified as ID5, with a maximum capacity of **2530** tons per hour of grain, using a filter as particulate control, and exhausting to stack 5.

- (e) Pellet Cooler Operation, identified as ID6, with a maximum capacity of **2530** tons per hour of pelleted feed per hour, using a cyclone as control, and exhausting to stack 6.

.....

2. Unit Description of Section D.1:

The unit description of Section D.1 shall be revised as follows to include the new replacement mill and grain cleaner capacities.

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

- (a)

- (d) Grain Cleaning operation, identified as ID5, with a maximum capacity of **2530** tons per hour of grain, using a filter as particulate control, and exhausting to stack 5.

- (e) Pellet Cooler Operation, identified as ID6, with a maximum capacity of **2530** tons per hour of pelleted feed per hour, using a cyclone as control, and exhausting to stack 6.

.....

3. Condition D.1.1:

The 326 IAC 6-3 PM hourly limit shall be revised to include the new allowable rate associated with the new maximum throughput rate of 30 tons/hr.

- (b) ~~Pursuant to CP-085-2792-00021, issued on June 15, 1993, the~~ **The particulate matter (PM) emissions from the Pellet Cooler Operation, for a maximum process weight rate of 30 tons per hour, shall be limited to 40.04 lb/hr. by the following:**
~~Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:~~

$$E = 4.10 P^{0.67} \text{ ————— where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

$$E = 4.10 P^{0.67} \text{ ————— where } E = 35.43 \text{ pounds per hour} \\ P = 25 \text{ tons per hour}$$

The cyclone shall be in operation at all times the Pellet Cooler Operation is in operation, in order to comply with this limit.

- (c) ~~Pursuant to CP-085-2792-00021, issued on June 15, 1993, the~~ **The particulate matter (PM) emissions from the Micro Room, Grain Cleaning operation and the Packing Operation, for respective maximum process weight rates of 0.5, 30, and 12 tons per hour, shall be limited to 2.58, 40.04, and 21.67 lb/hr, respectively. by the following:**

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \text{ ————— where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

The allowable emissions for each facility are as follows:

Emission Unit	Process Weight Rate (tons/hr)	PM Emissions (lb/hr)	Allowable PM Emissions (326 IAC 6-3-2) (lb/hr)
Micro Room	0.50	0.04	2.58
Grain Cleaning Operation	25.00	8.24	35.43
Packing Operation	42.00	0.17	24.67

Conclusion

The proposed modification shall be constructed and operated according to the provisions of the existing MSOP, the requirements of Minor Permit Revision 085-16074-00021, and all other applicable approvals.